



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,068	04/08/2004	Daniel J. Fisher	59692US002	9220
32692	7590	11/17/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY				MORGAN, EILEEN P
PO BOX 33427				ART UNIT
ST. PAUL, MN 55133-3427				PAPER NUMBER
				3723

DATE MAILED: 11/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/821,068	FISHER, DANIEL J.	
	Examiner	Art Unit	
	Eileen P. Morgan	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 August 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-17, 20-24 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4,5,13,24 rejected under 35 U.S.C. 102(b) as being anticipated by Manor et al.-5,807,161.

Manor discloses a pad for attaching an abrasive article to a sanding tool comprising a supporting layer having a backing material (17) of flexible material (col. 8, lines 50-58), some of these materials such as wood would have warpage in water, the backing material (17) completely surrounded by a moisture barrier (12) (Fig. 5 and col. 8, lines 61-67), a hook type attachment layer (14) for attaching to abrasive article, wherein the moisture barrier comprises polyurethane, which is the same material used in claimed invention and therefore would provide the same characteristics, such as barring moisture. The pad also has an opposite side for attachment to another object.

Claim Rejections - 35 USC § 103(a)

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3,6,7-12, 14,15,17,22,23 rejected under 35 U.S.C. 103(a) as being unpatentable over Manor, alone.

Manor discloses a pad for attaching an abrasive article to a sanding tool comprising a supporting layer having a backing material (17) of flexible material (col. 8, lines 50-58) completely surrounded by a moisture barrier (12) (Fig. 5 and col. 8, lines 61-67), a hook type attachment layer (14) for attaching to abrasive article, wherein the moisture barrier comprises polyurethane, which is the same material used in claimed invention and therefore would provide the same characteristics, such as barring moisture. The pad also has an opposite side for attachment to another object. Manor discloses the layer (17) can be of varying thickness. Therefore, the thickness of layer

Art Unit: 3723

(17) can vary and this thickness relative to the barrier layers would change and at times it would be obvious that the thickness would be greater than the barrier layers. Manor does not disclose the backing material being vulcanized fiber board, the claimed barrier layer, the adhesive being a hot melt adhesive, or the barrier being 'coated' onto backing. However, Manor discloses using wood, fiberglass, thermoplastics, polymeric materials, epoxy, or impregnated canvas materials for the backing material. It would have been an obvious design choice to use material of vulcanized fiber board since these products would perform equally well and Manor discloses that the thickness can be increased or decreased to attain the desired strength and flexibility. Also, examiner takes Official Notice of the materials claimed for the barrier are functional equivalents of polyurethane in the art and the choice of any would be within the level of ordinary skill. In addition, to use a hot melt adhesive would have been an obvious to one of ordinary skill in the art at time invention was made since any known adhesive capable of performing the necessary attachment would perform equally well as other attaching materials. In regard to the 'coating', this is a limitation drawn to a method of making the pad which does not further limit the pad structurally. Furthermore, examiner takes Official Notice that the way the article was made, whether 'coating the barrier unto the backing' or injection molded are functional equivalents in the art and the choice of either would be an obvious design expedient and within the level of ordinary skill. In regard to claim 15, to have more than one layer or element for barring moisture would have been obvious to one of ordinary skill in the art since this would create increased protection. In regard to claim 22, the pad of Manor can be attached to 'another' pad such as another back-up pad with the attachment components. The number of 'pads' does not provide patentably distinct structure. Furthermore, it would have been obvious to one of ordinary skill in the art at time invention was made to use a plurality of pads, since it has been held that mere duplication of the essential working elements of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. In addition, Manor teaches it is old and well known to use back-up pads and conversion pads in an abrasive assembly. (col1, last paragraph).

5. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Manor in view of Chelsey et al-5,785,784.

Manor discloses a pad for attaching an abrasive article to a sanding tool comprising a supporting layer having a backing material (17) of flexible material (col. 8, lines 50-58) completely surrounded by a moisture barrier (12) (Fig. 5 and col. 8, lines 61-67), a hook type attachment layer (14) for attaching to abrasive article, wherein the moisture barrier comprises polyurethane, which is the same material used in claimed invention and therefore would provide the same characteristics, such as barring moisture. The pad also has an opposite side for attachment to another object. Manor does not disclose the adhesive being a hot melt adhesive. However, Chelsey (col. 8, line 43) teaches a hot melt adhesive is sufficient bonding for hooking stems to be attached to a second major surface. Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made, as taught by Chelsey (col. 8, line 43)

to use a hot melt adhesive for bonding hooking stems to a second major surface in order to securely affix fasteners to backing material.

6. Claim 16,20 rejected under 35 U.S.C. 103(a) as being unpatentable over Manor in view of Edinger-6,394,887.

Manor discloses a pad for attaching an abrasive article to a sanding tool comprising a supporting layer having a backing material (17) of flexible material (col. 8, lines 50-58) completely surrounded by a moisture barrier (12) (Fig. 5 and col. 8, lines 61-67), a hook type attachment layer (14) for attaching to abrasive article, wherein the moisture barrier comprises polyurethane, which is the same material used in claimed invention and therefore would provide the same characteristics, such as barring moisture. The pad also has an opposite side for attachment to another object. Manor does disclose in Fig 2a, the pad having attachment means (14) on both sides to attach to objects, but does not disclose the pad being without holes. Although, at column 10, Manor states any known means can be used to secure back-up pad to a power tool (lines 38-44). However, Edinger teaches a pad for attachment to two opposed objects without holes. Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made to use a pad, such as disclosed by Manor, without holes, as taught by Edinger, to have a continuous, uninterrupted attachment surface. In addition, to have holes or not, would be an obvious design expedient dependent on working parameters. Furthermore, since Manor and Edinger teach attaching the pad without holes, this would provide a pad with the backing material fully encapsulated by the moisture barrier.

7. Claim 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Manor in view of Edinger-6,394,887 and Chelsey.

Manor discloses a pad for attaching an abrasive article to a sanding tool comprising a supporting layer having a backing material (17) of flexible material (col. 8, lines 50-58) completely surrounded by a moisture barrier (12) (Fig. 5 and col. 8, lines 61-67), a hook type attachment layer (14) for attaching to abrasive article, wherein the moisture barrier comprises polyurethane, which is the same material used in claimed invention and therefore would provide the same characteristics, such as barring moisture. The pad also has an opposite side for attachment to another object. Manor does disclose in Fig 2a, the pad having attachment means (14) on both sides to attach to objects, but does not disclose the pad being without holes. Although, at column 10, Manor states any known means can be used to secure back-up pad to a power tool (lines 38-44). However, Edinger teaches a pad for attachment to two opposed objects without holes. Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made to use a pad, such as disclosed by Manor, without holes, as taught by Edinger, to have a continuous, uninterrupted attachment surface. In addition, to have holes or not, would be an obvious design expedient dependent on working parameters. Furthermore, since Manor and Edinger teach attaching the pad without holes, this would provide a pad with the backing material fully encapsulated by the moisture barrier. In addition, Manor does not disclose the adhesive being a hot melt

Art Unit: 3723

adhesive. However, Chelsey (col. 8, line 43) teaches a hot melt adhesive is sufficient bonding for hooking stems to be attached to a second major surface. Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made, as taught by Chelsey (col. 8, line 43) to use a hot melt adhesive for bonding hooking stems to a second major surface in order to securely affix fasteners to backing material.

Response to Arguments

Applicant's arguments filed 8-14-06 have been fully considered but they are not persuasive. On page Applicant argues that Manor does not disclose a back-up pad and is not concerned with warpage. However, what the prior art is concerned with does not render the claimed invention patentable. Manor discloses the claimed structural limitations and therefore the present invention is not patentably distinct over Manor. The pad of Manor can be used as a conversion pad since it has attachment means on both sides, one side for an abrasive and the other for a back-up pad. The reference to col.9,II34-37 is not understood in reference to arguing that the plate 17 must be rigid. The materials used by Manor for the plate and the supporting layer anticipate the claimed limitations or are obvious variations. Applicant argues on page 8 that the plate (17) of Manor must be rigid. However, Manor says the material of 17 'may' be selected from a variety of rigid materials.... A preferred material is polypropylene which is a flexible material. The plate would, in part, dictate the flexibility of the pad and therefore, the thickness can be decreased to increase flexibility of the plate. In regard to claims 12 and 14, these materials are shown by applicant to be functional equivalents. Since one of the claimed options is disclosed by Manor, the others in the group are deemed functional equivalents. Nothing in Applicant's disclosure suggests that the materials

disclosed as functional equivalents are novel. Therefore, these materials are admitted prior art known for their equivalent functions. The intended method of making the pad, either by injection molding or coating, would be equivalent and obvious design expedients. Furthermore, the method of making the pad does not further limit the claim structurally. In regard to claim 16, arguments onpage 9, Manor discloses that any known attachment means may be used, which would include not using holes, if known, which is known as shown by Edinger. Applicant does not argue the combination but rather that Manor teaches using holes for attachment. Edinger is not used to show an encapsulated plate but an obvious variation of attachment, therefore Applicant's argument is not germane to rejection. In regard to claim 7, materials with similar functionality are obvious substitutions for disclosed materials. Therefore, vulcanized fiber board would perform functionally similar to thermoplastics, polypropylene, impregnated canvas, etc. These are disclosed by Applicant as old and well-known and not as novel materials. On page 10, In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Edinger is only relied upon to teach a certain attachment. This has nothing to do with the plate that Manor already discloses. In regard to claim 22, it would have been obvious to use a plurality of pads as discussed in the rejection. And, the Applicant points out that Manor teaches it is old and well-known to use a back-up pad and conversion pad in an abrasive assembly, and

therefore would be obvious to one of ordinary skill in the art. In regard to claim 24, wood would warp in water and is flexible depending on thickness and shape.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eileen P. Morgan whose telephone number is 571.272.4488. The examiner can normally be reached on Monday-Thursday, 7am-3:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571.272.4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EM

November 11, 2006



Eileen Morgan
Primary Examiner